

DEVICE AND METHODS FOR DETECTING SAMPLES IN A FLOW  
CYTOMETER INDEPENDENT OF VARIATIONS IN FLUORESCENCE  
POLARIZATION

ABSTRACT OF THE DISCLOSURE

5           The invention provides a sample detection  
apparatus, including a polarized radiation source, flow  
chamber and signal detector, the flow chamber placed to  
contact polarized radiation from the polarized radiation  
source, the signal detector is placed to selectively  
10 detect radiation propagated from the flow chamber at  
about 54.7 degrees from the direction of polarization of  
the contacted polarized radiation. Also provided is a  
method of detecting fluorescent intensity for a sample in  
a flow cytometer independent of anisotropic radiation  
15 emission. The method includes the steps of: (a)  
contacting a sample in a flow cytometer with polarized  
radiation; and (b) detecting radiation emitted by the  
sample at about 54.7 degrees with respect to the  
direction of polarization of the polarized radiation at  
20 the point of sample contact.